



Ø-Beat



Vol. 50

November 2000

No. 11

Welcome New Officers!

Congratulations to our new board members! This table shows the newly *elected* board members, and their terms. Mike Allen NØMIK, Ron Deutsch NKØP, Jerry Verduft ADØA and Tom McDaniel NØNTX are the four new members to the board, and are beginning their 2-yr term. Continuing from last year are Rhoda Anderson KB2BZY, Rob Roller N7LV, Sid White K4ARM and Rick Brown KØSU, who are in the second year of their 2-yr term. Mike WV7T continues on as the past president for an additional year in a non-elected position, as outlined in the Bylaws. Glad to have everyone aboard, and we're all looking forward to another good year! Page 2 of the Ø-Beat has been updated, and the web page listing of officers will be updated shortly. There are 9 now board members. The continuing directors are indicated with an arrow. Now don't forget to go out and cast your other vote; that is, for the federal elections on November 7.

Oct 1999	Oct 2000	Oct 2001
WBØRTF	NØMIK(S)	→
WV7T(P)	NKØP(T)	→
KBØRLF	ADØA	→
KCØAGG	NØNTX	→
KB2BZY(S)	→	
N7LV(T)	→	
K4ARM(V)	→(P)	
KØSU	→(V)	

(P)=President (V)=Vice President (S)=Secretary (T)=Treasurer

Propagation Revisited

[Ed: Shortly after my last series of articles on propagation, I received this article, forwarded by Jack Bierderman KBØZGI. Jack and Bob Prochaska develop space weather software for the DoD. Bob Prochaska is the chief scientist at their organization.]

It's not the sunspots themselves that affect radio on Earth, but other cyclic changes in solar output which track fairly well with the sunspots. The Earth's ionosphere is primarily produced by absorption of solar extreme ultraviolet (UV) and X-ray emissions which ionize the Earth's atmosphere. The solar X-ray and UV emissions (and solar radio frequency emissions) vary cyclically with the sunspots, so the strength of the ionosphere appears to vary with the sunspot cycle. When the ionosphere is more ionized due to the increased solar X-ray and UV emissions, higher HF frequencies are refracted from the ionosphere. This results in generally higher maximum useable frequencies. Since background noise generally varies inversely with frequency at these frequencies, going to higher frequencies can give much clear transmissions. So, HF conditions can be very good at the peak of the solar cycle.

However, the peak of the solar cycle is also the time when very poor propagation conditions can occur, especially at lower HF frequencies. This is due to the impulsive release of energy, especially at very short wavelengths (X-rays). These impulsive releases of X-rays accompany solar flares (optical), and the X-ray emission from the sun can increase by one or two orders of magnitude with a really large flare. In the most extreme cases, it may take hours for the X-ray output of the sun to return to its previous level. The X-rays are primarily absorbed in the

(Continued on page 3)

Nov Program: Dick Pache K2LCT - Build a J-Pole Antenna

Meetings Our monthly meetings are normally on the 2nd Wednesday of each month at 7 pm at Mount Calvary Lutheran Church, 1318 N. Circle Drive, about 1/2 way between Platte Ave and Constitution Ave on N. Circle. Our Annual meeting is in October.

Regular License Exam Sessions

PPRAA ARRL test sessions on the 2nd Saturday of even numbered months at 0900 at the Denver Technical College, 3245 International Cr, across from Memorial Park. Contact Erik KGØXE for details.

Examinees need to bring (1) \$6.65, preferably a check or money order payable to ARRL/VE; (2) picture ID; (3) the signed original and a copy of your current amateur radio license and CSEs you have (we keep the copies); and (4) a pen, pencil, and calculator if needed. Memory calculators will be checked.

PPRAA Web Page

See it at <http://www.qsl.net/ppraa/>. Thanks to Rick Brown KØSU, our webmaster and reflector maintainer.

Get on the PPRAA E-mail

Reflector Stay on top of new or short-fused developments. Send e-mail to majordomo@qth.net; within the body type "subscribe ppraanet".

PPRAA Simplex Net All amateurs are invited to join us on Thursday evenings at 1900 on 146.58 MHz simplex for our club net. Get the latest club and regional happenings!

Officers and Directors

*President	Sid White	K4ARM	495-4147	k4arm@arrl.net
*Vice-President	Rick Brown	KØSU	531-9423	k0su@arrl.net
Secretary	Mike Allen	NØMIK	594-4896	mallen517@aol.com
Treasurer	Ron Deutsch	NKØP	593-8352	deutschra@aol.com
*Board Member	Rhoda Anderson	KB2BZY	634-7168	wv7t@aol.com
Board Member	Jerry Verduft	ADØA		verduftj@earthlink.net
Board Member	Tom McDaniel	NØNTX	570-1465	n0ntx@amsat.org
*Board Member & Ø-Beat Editor	Rob Roller	N7LV	282-0204	n7lv@amsat.org
Past President	Mike Anderson	WV7T	634-7168	wv7t@aol.com

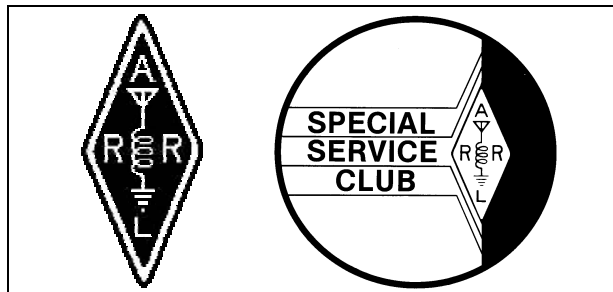
* Indicates this Director is completing the second year of a two-year term

Committee Chairs & Other Contacts

Activity	(vacant -- volunteer desperately needed !!!)			
Auditing	Jerry Allen	NØGCA	264-1278	jerall2@aol.com
Asset	Mike Stansberry	KØTER	636-1290	k0ter@arrl.net
Historian	Jody Borst	KAØROZ	634-3995	kc0nc@aol.com
Interference	Bill Petty	NØNJX	532-1439	william.petty@sil.com
Membership	Les Borst	KCØNC	634-3995	kc0nc@aol.com
Programs	Rick Brown	KØSU	531-9423	k0su@arrl.net
Publicity	Rick Brown	KØSU	531-9423	k0su@arrl.net
Public Service	Mike Stansberry	KØTER	636-1290	k0ter@arrl.net
Swapfest	Bob "Rails" Ryals	KIØGF	265-9950	rryals@pcsisys.net
Technical Education	Linda Hedges	KBØRKW	683-7828	kb0rkw@juno.com
VE Testing	Erik Mugele	KGØXE	596-5345	erik@teuton.org
Ø-Beat	Rob Roller	N7LV	282-0204	n7lv@amsat.org
AMSAT Coordinator	Tom McDaniel	NØNTX	570-1465	n0ntx@amsat.org
ARES EC	Larry Dunn	N9HSW	265-0329	n9hsw@arrl.net
ARES Liaison	Mike Stansberry	KØTER	636-1290	k0ter@arrl.net
CCARC Liaison	Moe Pierce	WBØRTF	550-0406	wb0rtf@amsat.org
RACES Officer	John Roberts	KBØVGX	575-8400	kb0vgx@worldnet.att.net

Upcoming Club Programs

November	Dick Pache K2LCT: Building a portable J-Pole (as shown in Sep Ø-Beat)
December	Christmas Party in lieu of meeting! (See page 5 for details)



Articles for the Ø-Beat Deadline for articles or ads for the December issue is Nov 27. Submit articles by e-mail, US Mail, telephone or in person to the editor. Editor reserves right to correct for readability, grammar, spelling, punctuation and length.

Nonprofit Organization The PPRAA is a federal 501(c)(3) nonprofit organization and welcomes all contributions. Your contributions/ donations may be tax-deductible.

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Results of Bylaws Review

Bylaws Change: The suggested changes were approved by the membership. Look for an updated copy of the Bylaws on the web, and in a future edition of the *Ø-Beat*. Below are the approved changes.

- c. Family membership: Any person who is the husband or wife, brother or sister, son or daughter, father or mother of a Full or Senior member, and who is living at the same address of such member, and who would otherwise qualify as a Full or Senior member, shall be eligible to become a Family member upon payment in advance of the dues specified for such person in Article IX, hereof. A Family member shall have the rights and privileges of a Full member, but without the right to receive the association's publication "*Ø-Beat*".
- d. Senior membership: Any person who otherwise qualifies as a Full member and has attained the age of 65 is eligible for Senior membership at the dues rate specified in Article IX hereof. A Senior member shall have the rights and privileges of a Full member.

Propagation Revisited (Cont'd)

lowest portions of the ionosphere (D-region), and this absorption can greatly strengthen the ionization in that region. The D-region is responsible for much of the absorption that limits the lowest useable frequency, and during these X-ray producing flares, propagation channels may close up from the bottom due to this absorption. Extreme cases of this are known as Short Wave Fades.

Measuring and recording of sunspots to chart the cycles of the sun goes back to Galileo. The 10.7 cm flux is a more recently developed index that tracks well with the sunspot number, and with the X-rays and EUV which produce the ionosphere. Canadian radio astronomers used surplus WWII radar receivers to monitor the solar radio emissions. Their successors make a daily measurement of the solar radio emission at 2800MHz. This frequency actually has very little absorption by the Earth's atmosphere, so it can be used to monitor solar variability. The sun actually is a major radio frequency emitter (from HF well up into the GHz range), and like X-rays and EUV, the energy output at these frequencies dramatically increases associated with large solar flares. These impulsive solar emissions are known as solar radio bursts, and they are superimposed on a background solar emission that varies with the solar cycle. It is this background radio emission that the F10 measures.

The planetary A index (or Ap) and the planetary K index (or Kp) identify the level of disturbance of the Earth's (geo)magnetic field. The variable part of the geomagnetic field is due to the flow of charged particles orbiting the Earth centered roughly at geosynchronous altitudes. Because this flow is a current around the Earth, it contributes to the magnetic field measured at the surface of the Earth. Whenever this current is disturbed, the magnetic field will vary, sometimes dramatically. The A-index and K-index were developed to quantify the level of disturbance of the geomagnetic field.

At observatories around the globe, there are instruments to measure the variations of the geomagnetic field. Each observatory assigns a number between 0 and 9 to

represent how disturbed is the magnetic field every three hours. The higher the number, the more disturbed is the magnetic field. Each increase in K by a value of 1 represents roughly an order of magnitude increase in the disturbance (so it is referenced as a logarithmic scale). The 3-hour K values from a specific set of observatories around the globe are combined to produce the planetary K index, the Kp. This index assigns a numeric category between 0 and 9 and a subcategory of -, 0, or +. The Kp is converted to a linear index called the a-index, or ap. The eight successive ap values in a day are averaged to get the daily amplitude, Ap. The Kp is used to identify small disturbances which relate well to auroral activity. The Ap is used to identify the average disturbance level of the entire day and to identify really large, long-lasting disturbances of the geomagnetic field.

So how do you use geomagnetic indices in propagation? The numeric portion of the K-index, the 0 to 9 value, is probably the most useful in identifying geomagnetic disturbance effect on propagation. The effects also are very dependent on the regions of the Earth's ionosphere which you are trying to use to propagate. Propagation on long East-West paths normally includes passage near or through high latitude regions where aurora occur. Larger values of the K-index represent disturbances which enhance the aurora and the effects which accompany them. Aurora often include significant increases in atmospheric noise (which can elevate the LUF) and rapid fluctuations of the shape and strength of the ionosphere (which can cause rapid changes is refraction of HF signals, leading to focusing and defocusing as seen in large fluctuations in signal strength. Propagation on shorter paths and on North-South paths which do not go into the ionosphere more than 50 degrees of latitude from the equator are much less affected.

Current solar and geomagnetic information is available on WWV and WWVH, but more detailed information can be found on the web at <http://www.sec.noaa.gov/today.html>. This site is published by the NOAA Space Environment Center, the same people who provide the

information for WWV and WWVH. *de KA9MKK Bob Prochaska*

Colorado 14er Results are In

During the 2000 (10th Annual) Colorado 14er Event, 18 "official" 14er peaks were active on the ham bands.

Number of Peaks Active in Past 14'er Events (by year)							
2000	1999	1998	1997	1996	1995	1994	1993
18	20	17	20	17	20	16	19

Mountains Activated During This Years Event

<u>Summit</u>	<u>Call</u>	<u>Name</u>
Antero	KFØWF	Frank
Bross	NØKE	Phil
Castle	KCØEXR	Dirk
Crestone Needle	NØPE	Jon
Evans	W4HXC	Walt
Handies	KCØCAV	Eric
Humboldt	NØBN	Daniel
Huron	AAØCM	Andy
La Pata	KCØFMM	Daryl
Lincoln	KGØCZ	Paul
Lindsey	N5GIC	Allyn
Little Bear	KCØGBK	Steve
Pikes	KØYB	CO VHF Group
Quandary	WDØHHQ	Robert
Shavano	KCØADT	Greg
Tabeguache	KCØEFR	Mike
Torreys	K2AD	Doug
Yale	KCØHHZ	Jason

With 18 peaks active, this is a few mountains less than we've had on our best years, but not abnormally low. Like last year, we had operators trying out modes other than VHF FM. There were several stations on HF and a significant amount of SSB activity on the VHF/UHF bands. This year, KBØCY made 5 OSCAR contacts from Pikes Peak using the UO-14 satellite. From various peaks, activity occurred on these bands using a variety of modes (CW, SSB, FM): 14 MHz, 21 MHz, 50 MHz, 144 MHz, 222 MHz, 430/440 MHz. Most of the contacts were on 2M FM, due to the popularity of that band/mode and the compact, lightweight nature of the equipment. 70 cm FM (440 MHz) was the second most popular mode due to the availability of dualband HTs. While the event will tend to remain centered on VHF FM due to the need to climb most of the 14ers, I encourage everyone to experiment with different bands and modes as they see fit. The longest distance contact between 14er stations was on 2M and 70 CM FM between W4HXC on Mt Evans and KCØCAV on Handies Pk, for a distance of 153 mi. If you'd like to claim a longer distance contact, please let me

know. (14er distance information is available on the 14er event web site.)

NØBN on Humboldt Peak and K2AD on Torreys Peak worked for a distance of 116 mi. However, KCØCAV and KCØCEN on Handies worked WDØHHQ on Quandary for a distance of 127 mi, which is apparently the longest distance contact between hike-up stations. The record for best DX between 14er stations is 188 miles, set in 1995 during a QSO between Andy AAØCM on Longs Peak and Jan W3GEY on Sunshine Peak. Longs Peak, a necessity for a new distance record, was unoccupied this year. A new 2M all-mode record of 395 mi was set by W4HXC on Mt Evans and N5OBA on So Baldy in New Mexico using SSB. N5OBA was at 10,700 ft in elevation in the Magdalena Mtns (VHF Grid DM63). This just barely beat the old record of 388 mi, set by NØIVN on Mt Evans, contacting NØYKR in Great Bend KS. Of course, let's not get hung up on distance records. Tracking distance records helps people understand the kind of DX that is possible on VHF and up without the use of exotic equipment or requiring exceptional operating conditions. The main goal is to get out in the mountains, see who we can work, learn something about radio communications and have some fun along the way! Thanks to everyone that came out and activated the mountaintops. As usual, we had a good mix of returning 14er event veterans and new participants. I hope you had a fun, safe experience. Also, thanks goes to all of the operators that took the time to work the mountaintop stations from down below.

Mark your calendars for next year's event: **August 26, 2001.** *73 de Bob KBØCY (kb0cy@arrl.net)*
(Colorado 14er Event website:

<http://members.aol.com/colo14er/>) (E-mail distribution list: 14er@qth.net) (To subscribe, send "subscribe 14er" message to majordomo@qth.net

Russ & Rosie Appreciation Dinner

Anyone that's been in the club for any length of time will immediately know who Russ and Rosie are; no need to mention last names or callsigns. Their names are pretty much synonymous with the club and ham radio. And as many of you already know, they've moved out of their home on 31st, and into an RV park. Their long-term plans are a little up in the air now, but we do know they're sticking around here until around Christmas, then doing some traveling after that, and probably returning to COS. After that, who knows?

To show our appreciation for all that they've done for the club over the years (Rosie's been with the club for

decades, Russ is a little newer), we're setting up an appreciation dinner for them. It'll be on **Nov 18**, from **5 to 6:30 pm** at the **Country Buffet North, 7665 N Academy Blvd**, in the Cub Foods/Best Buy shopping center. (As much as we'd have liked to make it a surprise party, Rosie doesn't take kindly to surprises.) We'll have a banquet room reserved, and we'll need to know how many folks are coming. **Please RSVP** to either Rob N7LV (282-0204) or Ginger NØUD (528-8361). Everyone pays their own way. Figure on about \$10 per person.

Also, if you have any interesting or amusing stories about Rosie and Russ, please bring them along. We'll provide some time for you to tell us all about them!

Christmas Party Planned



Usually by this time each year, we've found a location and set the date for the annual Christmas Party. We won't disappoint you this year. Our party is planned for Dec 15 at 1900, (set-up at 1830), and will be located at the Springs City Church, 1250 Vondelpark Dr (off of Chestnut). This will be pot luck, as in recent parties, and the club will provide the turkeys and a ham (we're talking food here, not people!). Please bring a side dish, a dessert, or one of your favorite dishes. We also ask that, if possible, you bring your pot luck item in some kind of disposable serving tray. Last year we had a couple of items disappear, and we can't be responsible for that. If you do bring in a serving tray, please keep tabs on it so you don't lose it.



APRS Update

APRS (Automatic Position Reporting System) is still going strong in Colorado. Here in CCOS we can now see on our maps mobiles moving along I-80 in southern WY. Up and down I-25 from Cheyenne WY to past Albuquerque NM. We also see stations from West Texas to Flagstaff AZ. This is **WITHOUT** the use of the internet, just 2 meter RF packet signals on 144.39 MHz. The improvement is partly due to the southern CO group adding two new digi's. One is on top of Raton Pass; the other is on Cheyenne Mtn. New Mexico has 25 or more digi's on mountain tops; Colorado has 4 and I think WY now has 3 from Cheyenne to Rock Springs. We have sites offered in several areas including Divide and Mt Pisgah.

The reason New Mexico has so many is their search & rescue units depend on them for locating each other and keeping in touch. Yes, short messages can be sent thru APRS. I routinely exchange msgs with station in Clovis NM. *de NØKIC*

Passing the Time

- **50 Years Ago this Month:** Amateur Club Formed: The first meeting of the "Radio Club" was held on Nov. 8, 1950 at the YMCA. The "El Paso Radio Club" was suggested for the name of the club. Officers elected were: President - Jim Reynolds WØLMB, Sec/Treasurer - Elmer Hamilton WØLZY. A short discussion on the pending city antenna ordinance closed the meeting.
- **20 Years Ago this Month:** The November meeting was called to order by Pres. Dave Vierling at Sabin Jr. High. The Christmas party will be held at the Iron Springs Chateau. Motion passed to increase the dues to \$12.00 for individual members; \$15.00 for families, and \$8.00 for associate members.

de Jody Borst KAØROZ, Historian



Kim KCØIST(also HL1OWC) receives the October Hammy of the Month Award from outgoing President Mike Anderson WV7T. Kim is from Korea and has held a Korean call sign for a long time. He recently took the US license exam and has earned a US call sign. Congratulations, Kim!

Membership Report

Please welcome these New Members

NATE LEACH KCØHPW
 DEBORAH LEACH KCØHNW
 PHILLIP LEACH KKØPL

Members who need to see the treasurer

STEPHEN ANDERSON KCØHQH
 DUTCH HARBERT KCØHQI
 JOHN HASLING KCØHQB
 ROBERT ISHAM KCØHPY
 JAMES KINNEY
 ROBERT LANZA KCØHPR
 DIANE MARTIN KD5JTA
 ED MEANS WØVO
 ROBERT MIKULAS KCØHQA
 SANJAK NAIK KCØHQJ
 CAROL NELSON KCØHPS
 DAVID NELSON KCØHPT
 CORA NIEMAN KCØHQQ
 CAROLYN PELOUZE KCØHPZ
 ILEY PULLEN Jr. NØDUI
 MARK RICHARDS KCØHQB
 REBBECA SLOAN KCØHQC
 ROGER SPAULDING KBØPQM
 JONATHAN SPIEKER KCØHPX
 KENNETH VALDEZ KCØHQE
 MICHAEL WEAVER KCØHPU

Goodbye to the following members

MIKE ALLEN NØMIK
 JOHN CHAPMAN NØKIC
 DAVID EK ABØGO
 MARY SUDDARTH WA5CRU

Hams Active in City Exercise

On Sep 20, hams from the Pikes Peak ARES spent the better part of a day participating in a city exercise to prepare against a terrorist attack using weapons of mass destruction. Also known as the Nunn-Lugar Exercise (named after Senators Sam Nunn and Richard Lugar, who authored the Cooperative Threat Reduction Act of 1996 to assist with the dismantling of Russian nuclear weapons), the exercise involved numerous agencies, such as the COS OEM, Fire Dept, the Red Cross, Peterson AFB, and some hospitals: USAFA, Evans Army, Memorial, Penrose Main and Penrose Community. Nineteen hams put in about 200 man-hours primarily manning the Red Cross shelters and tracking patients from triage to transportation to the hospitals. Hams also checked out the antennas at various hospitals in the city. (Little-known fact: Most of those antennas were put in by the PPRAA back in the mid to late 1980's when Jake Jacobs NØCYR was the ARES EC.) The main part of the simulation took place at the Sertich Ice Arena at Memorial Park. Hams operated from a staging area at Targer at Circle & Airport Rds.

These kinds of exercises, as well as public service exercises, help us as amateur radio operators to understand our capabilities, and our role in assisting our



An arial view of the exercise site showing numerous emergency vehicles and triage tents. (Photo by Donna Fair, City OEM)

served agencies. You learn net procedures, how to work as a team, how to operate your own equipment, to operate in a stressed environment, how to work with people from other agencies, and much more. It's crucial for you to participate in these kinds of exercises if you expect to be a player in a real disaster. You should also expect to do more than just operate a radio and stand there, looking official. More and more, hams are expected to find out how the served agency works, get active with the agency and seek out other ways you can be valuable to that agency. That theme is being repeated over and over in various ARES and RACES circles around the country. The points of contact for both ARES and RACES are shown on page 2. Find out more from them about these kinds of exercise and how you can help.



Many volunteers participated as "victims" to serve as guinea pigs for the public safety personnel to practice their skills. Warren Hickey WØYNE can be seen in front of the police Blazer taking down patient tracking info. (Photo by Donna Fair, City OEM)

Public Service & Emergency Communications

The PPRAA is an ARRL Special Services Club, but it is not an emergency services club itself. The PPRAA supports all amateur radio involvement in public service and emergency communications in any way it can, including reporting activities happening in the region. These columns are based on available knowledge, and the opinions expressed are not necessarily the opinions of RACES, ARES, Skywarn or any other organization, or their leadership. Logos used with permission.

RACES



<http://www.qsl.net/epcraces/>

VHF Net Tuesdays at 1930 on 147.345/448.1 MHz

CMRG repeater

John Roberts KBØVGX, RACES Officer

The new communications console is practically complete. Stop by and take a look at it some time. **Tony Dal Lago KC4VMB** raised his hand and is the **new deputy RACES officer**. Congrats, I think! If you need access to help out, now you can contact either John or Tony. Tony is asking others to help out and get involved- there's still much to be done with administrative work and equipment prep, such as with portable packet, ATV, the PacketCluster, and numerous other areas. Help out if you can. Nothing new at the last meeting regarding the exercise coming up, other than be prepared for it. The Douglas/El Paso/Teller Co. exercise is planned for 4 Nov.

From N9HSW: This year's SET involves three counties, two ARES districts, and El Paso RACES. PPARES will exercise in both El Paso and Teller Counties. The scenario for the Teller County activity will be provided by Teller County Office of Emergency Management, working with PPARES. The scenario for the El Paso County activity will tie into both the Teller and El Paso OEM scenarios, but will primarily be generated by PPARES to ensure that we meet our SET requirements. PPARES anticipates working with the following primary served agencies during the SET:

Teller Co. OEM	Langstaff-Brown Medical Center	American Red Cross
Teller Co. Police and Fire Depts	Northern El Paso Fire Departments	National Weather Service (winter)
	Search and Rescue organizations	

In addition, El Paso County OEM has indicated that they may request our assistance. That requirement has not been defined, but we will attempt to satisfy any requests after meeting our primary served agency needs.

For those who may be wondering, we have conducted extensive exercises earlier this year with many of our other primary served agencies. The fact that we enjoy a long term and very positive relationship with these agencies leads to a mutual decision not to exercise further this year. Those agencies include:

Colorado Springs OEM/FD/PD	ALL El Paso County Hospitals	Colorado Springs Airport
AMR Ambulance	National Weather Service (Skywarn)	

The November SET will allow PPARES to test its organizational and callup structure, effectiveness of multiple communication modes, several established PPARES base stations, the frequency plan, and large area/scale field operations. PPARES will also concentrate on radio traffic/flow management. It's also an excellent opportunity to demonstrate our ability to our served agencies. Last but not least, it's a great chance for all to engage in a fun amateur radio activity, maybe test new techniques, see old friends and meet new ones.

ARES



<http://www.qsl.net/n7lv/dist14.htm>

VHF Net Tuesdays at 1900 on 146.97 MHz

PPFMA repeater

Larry Dunn N9HSW, Emergency Coordinator

Training: Mike NØMIK's first training session on Oct 7, went well; the second one on 21 Oct went well also, and included some training on the MARC portable system. Nice to see new faces, besides the same 'ol faces. It was an intro to ARES, how PPARES works, net control operations, and other basic info. **SET:** This year's objectives are to test emergency capabilities, test working with served agencies, and have fun. The statewide **ARESCO server has moved** from **rmsd.com** to **qth.net**. If you want to get on that statewide reflector, send an e-mail to **majordomo@qth.net**, and in the body type *subscribe*.

New Personal Radio Service Goes Into Effect in Nov

In an FCC report and order dated 12 July 2000, the FCC adopted several changes to the Part 95 (yup, that's CB) to add a new service called the Multi-User Radio Service, or MURS. This is really just another type of Family Radio Service (FRS) with some differences. MURS takes five VHF frequencies currently allocated for business and makes them available for use by unlicensed operators. Here's the scoop. The five freqs are 151.820 MHz, 151.880 MHz, 151.940 MHz, 154.570 MHz and 154.600 MHz. Allowable modes are voice, data or images, so it's possible for folks to run packet on these. But with power limitation at 2W ERP, that may limit its usefulness, depending on the application. You can't run a 2W xmtr and plug it into a 10dB gain antenna. Compare that to the FRS which has 14 channels in the 462 MHz range, allows FM voice only, and limits power output to 0.5W. Like the FRS, this service will serve families that didn't want to go through studying for a ham license, or businesses that need low power comm and inexpensive equipment. There's probably some application for either of these services for hams. For example, if you need to stay in touch with your served agency's POC while in an ARES or RACES function, and either your POC doesn't have a ham license or you don't have any equipment compatible with their system, either of these services may provide another comm option. *de N7LV*

Club Jackets ?

Rob N7LV is now accepting orders for the yellow PPRAA jacket at the next couple of meetings. Call him directly if you can't make the meeting. Approximate cost is \$35 per jacket, payable in advance. Your name and call will be screened on the front, and the club logo on the back. Cutoff for ordering is the December Christmas party (Dec 15). Jackets will probably be ready sometime in January.

Hams Can Help with Thanksgiving Dinners for Needy

It's a tough time of the year for some in our community, and it may seem even tougher to leave your family on Thanksgiving to help out the needier. But there's a program called Community Holiday Dinners, which has been providing turkey dinners for those that can't afford the dinners or have nowhere to go on the holidays. Some are poor, others are military with no family in the area. This is another opportunity where amateur radio communications can assist.

Since August, Richard Fredricy KBØLWJ and Pat Conner KØTSR have been looking into just how ham radio can help, and they believe it can be a great help. You may have seen their e-mail in August on the PPARES reflector. Cellular phones have been tried to no avail - they just get busy signals. Delivery vehicles can become disabled and unaccounted for without comm. Shuttle buses can operate more efficiently with comm. Yet another typical use for ham radio resources.

The hardest part is parting from your family on these special days. Not to fear though, as your whole family can get involved. Or you can adjust your own schedule around your volunteer hours. Volunteers will be given a free dinner as well. If you'd be interested in helping in some fashion, please contact Richard. You may be interested in helping, but not necessarily with amateur radio. If so, there are lots of things that you could help with. Let Richard know what you're interested in, and he'll point you to the right person. You can catch him on the 146.625 CSARA repeater, or contact him via phone or e-mail. (*Richard Fredricy, KBØLWJ, 282-2739, e-mail rfredricy@carriocabling.com*)

General Meeting Minutes

The October 11th 2000 meeting of the Pikes Peak Radio Amateur Association was called to order by President Mike Anderson WV7T at 7pm. There were 45 members present. Mike asked for corrections or omissions to the September club meeting minutes printed in *Ø-Beat*. A motion was approved to accept minutes as printed. Rob N7LV gave a brief treasurer's report for September 2000. Mike mentioned the freebies on one of the back tables. He also spoke on the November 11th Veteran's Day special event station and is looking for additional operators to assist. January will see a week-long special event operation for the 10th anniversary of Operation: Desert Storm. Interested persons can contact Mike at wv7t@aol.com or 634-7168. (Mike has e-mailed the USS Cole to secure permission to dedicate the Veteran's Day special event station operation to the crew of USS Cole.) In January Mike will be offering miniclasses on various topics and will publish advance information in *Ø-Beat* and the PPRAA reflector. Rosie WAØMNL gave notice of coffee and doughnuts at her house on Saturday morning. Dan KBØPPM asked for volunteers and equipment to use at the upcoming Jamboree-On-The Air. The operation will start 7:30 am Saturday October 21st. Linda KBØRKW stated Frank Mc Nally KFØWF will again offer his Technician Class license course starting January 9, 2001 at the Office of Emergency Management on S. Union. Morse code class may be taught before the
(*Cont'd on Pg 9*)

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ALINCO DR130T, 2m mobile. \$110	KENWOOD TS440S/AT. \$850
ASTRON RS12A. \$50	KENWOOD TS520. \$325
ASTRON RS35A, P/S, very little use. \$120	KENWOOD TS520SE 160-10m. \$375
ASTRON RS35M, w/meter. \$120	KENWOOD TS530SP Digital, WARC, excellent CW/SSB filters. \$550
BUTTERNUT HF5-B HF beam 10 12 15 17 & 20m good cond. \$175. One in box, never opened. \$275	KENWOOD TS680S 160-6m. \$650
BUTTERNUT HF6VX 80-10m vertical, good cond. \$175	KENWOOD TS830S Nice. \$600
HEATH HW-101 HP23 P/S, new finals and relay driver, completely aligned to factory specs. \$250 firm	KENWOOD TS930S/AT Very nice. \$800
HEATH SB-200 Amp, exc cond, up to factory specs. \$350 firm	KENWOOD 2100 HF SWR / wattmeter, matches most Kenwood. \$75
HUSTLER 4BTV 40-10m vertical, all tuned. \$70	KENWOOD TR-9130 2m all mode, TTM, encode box. \$315
ICOM AH3 Auto tuner for 725, 726, 737, 707. \$200	KENWOOD TW-4000A 2/70m dual band mobile, TU4C tone encoder, TTM, voice synth, CAP/MARS, 25W. \$225
ICOM PS-55 20A power supply. \$150	MFJ 269 TO2 SWR analyzer, 450 MHz, New. \$310
ICOM SP3 Speaker. \$40	MFJ 462B All-mode multi reader, CW, RTTY, ASCII, AMTOR, will hook to printer. \$90
ICOM 211 2m all-mode base unit. \$350	MFJ 784 Tunable DSP filter. \$100
ICOM 725. 160-10m. \$650	MFJ 817 2/70 SWR/watt meter. \$60
ICOM 725-AH3 Combo. \$800	MFJ 1278B All-mode packet controller, used. \$150
ICOM 735. \$450	MFJ 9406X 6mtr SSB, new \$250, used \$175. CW adapter. \$40
ICOM 735 W/ hand mic, electronic keyer, & mounting bracket. \$625; w/o keyer & mounting bracket. \$600	MIRAGE D1010N 440 amp, 10/100w. \$250
ICOM 745 With internal PS, loaded with filters and TCXO. \$600	MIRAGE A1015G 6m amp, preamp, 10/150w, like new. \$250
ICOM 2000H VHF mobile w/tone. \$120	REALISTIC 394 AM, CW, SSB, SW receiver, AC/DC. \$150
KENWOOD AT-230 Manual tuner. \$130	SONY ICF5900W AM, FM, SSB, CW, portable SW receiver. \$100
KENWOOD PS 50 20 amp power supply. \$150	YAESU FT101E Xcvr w/ hand mic, good cond, \$325, also B & EE, \$300 ea
KENWOOD SM-220 Scope, no pan adapter. \$275	YAESU FT101ZD Digital, great cond. \$450
KENWOOD TM-261A Like new. \$150	YAESU FT102 Digital, AM/FM, WARC, excellent cond. \$550
KENWOOD TM733 2/70 mobile, loaded, cross band repeat, dual receive. \$300	YAESU FT109RH 220 MHz HT, 4w, \$150, with tone encoder installed. \$175
KENWOOD TS120S 5-band xcvr. \$325	YAESU FTV707 Transverter, 6m module installed, for FT707-901-902. \$200
KENWOOD TS140S. \$550	YAESU FT757GX Completely aligned, excellent cond. \$575
KENWOOD TS440S. \$750	YAESU TWINS, FL-101/FR-101 Trnscvr, quartz aligned, works good. \$450

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October 2000

(Continuation of minutes) theory class if there is enough interest. A motion was passed for a by-law change. Next board meeting will be at the home of newly elected president Sid White K4ARM. Members were informed Lunch Bunch would be on October 12th at Hometown Buffet starting about 11:30 am. Mike WV7T, in place of Greg KCØISU, presented the October Hammy to Kim KCØIST/HL1OWC. **ELECTIONS!!!** New officers elected by membership vote: President: Sid White K4ARM; Vice

President: Rick Brown KØSU; Secretary: Mike Allen NØMIK; Treasurer: Ron Deutsch NKØP. New and continuing board members: Mike Anderson WV7T; Rhoda Anderson KB2BZY; Jerry Verduft ADØA; Tom Mc Daniel NØNTX; Rob Roller N7LV. Club meeting adjourned at 8:30 pm. Submitted by Rhoda Anderson, KB2BZY, Secretary

Board Meeting Minutes

[The Nov board meeting will be held at Ron NKØP's QTH on Monday Nov 13. Pls RSVP 593-8352.]

The October 16th 2000 PPRAA board meeting was called to order by newly elected President Sid White at 7:00pm at his home. Board members in attendance: Sid K4ARM, Rick KØSU, Ron NKØP, Mike WV7T, Rhoda KB2BZY, Jerry ADØA, Tom NØNTX, Rob N7LV, Moe WBØRTF, Jody KAØROZ, Les KCØNC, Erik KGØXE. Absent Mike NØMIK, Paula KCØAGG, and Roger KBØRLF. Guests Bill KDØJU, John NØQJS. Rob N7LV talked about the signature card changes for the club bank accounts. The board decided unanimously to remove Rob Roller N7LV and Mike Anderson WV7T from the Ent Federal Credit Union and the Wells Fargo bank accounts, and that Ron Deutsch NKØP and Sid White K4ARM be added to those accounts. Rick KØSU will take care of the ARRL page change. Bylaw changes and absentee voting will be brought up before the club in the November meeting. The Christmas party was discussed and two dates looked at as well as planning and who would do what. Sid K4ARM will arrange for the church and food and \$100 was approved for the party. Rick KØSU will take care of door prizes. The club will again sponsor a Helping Hands food drive. An extra ticket for the Christmas party will be given to persons bringing food donations to the November club meeting and the Christmas party. The swapfest was discussed with ideas about the location, ticket sales, and cost of prizes. Les KCØNC mentioned that it would be nice to get a picture of present and past club officers for the club history. Will try at November meeting. The board discussed an audit of the clubs books and assets. Mike WV7T volunteered to contact Mike KØTER on the club asset inventory. Rick KØSU informed the board about future programs. January will be Show and Tell. Mike WV7T informed the board that a coordinator for the upcoming Freezoree would be needed, as Marcie KCØFII will unavailable. Mike WV7T will provide the board a list of Hammy recipients for 2000 following the December club meeting for selection of the annual Hammy presentation at January club meeting. Mike WV7T has offered to donate 2 camping tents and a public address amplifier to the club. There was a good discussion about club name badges and ones which indicate officer positions. Club patches will also be looked into. It was also discussed that all club officers should have their badges on when at club meetings and activities. Rhoda KB2BZY will take over from Sid as club meeting coffee maker. Meeting adjourned 8:55pm. *Submitted by Rhoda Anderson, KB2BZY, Secretary*

Treasurer's Report



New treasurer takes over:

After way longer than I ever expected to stay on as treasurer (since Oct '96), it's time to turn over the work to another capable soul. I do want to thank everyone that helped me out throughout the years. Ron Deutsch NKØP has had much club experience and I believe he will do an excellent job as treasurer! I've enjoyed my time as treasurer, and am looking forward to having a little more free time. As treasurer I've taken us into the electronic world by moving the books over to Quicken (they were all done by hand on paper) which has made it *much* easier to find specific financial information. I've also created a treasurer's web page and posted the treasurer's reports over the months to that site. I also got the club set up as a federal nonprofit corporation, and will continue to lead the informal nonprofit committee towards some possible means of obtaining some donations or grants. So, with this being my final treasurer's report, I'll be turning everything over for an audit as well, and then it's out of my hands. Thanks for letting me serve you.
de N7LV

Raffle Rules: Since a number of you have been involved in the hamfest/ raffle over the years, you should be aware of this. In years past, we'd buy our raffle prize from the general acct, then when the raffle was over, we'd pay ourselves back from the raffle acct to the general acct. After who-knows-how-many years of doing it this way, the state sent me a letter stating that was considered co-mingling of funds, and we can't do that anymore. So for future reference, we'll pay ourselves back by using the raffle acct to pay for other authorized expenditures such as the newsletter, until we've paid out the equivalent of the cost of the raffle prizes. *de N7LV*

Member Dues Changed: You should be aware by now that all memberships expire at the end of the calendar year. Many of you are renewing with that in mind. Existing memberships expire at the end of their current term but will renew at an amount such that the renewed membership will adhere to the new schedule.

If your membership expires in Nov, pay:

**Full: \$1.25 Family: \$1.50 Associate: \$1.00
Senior: \$0.83 Sr Family: \$1.00
to extend until Dec 2000**

Note that all membership payments received after Jan 1, 2001 must adhere to the new schedule. The Board will contact those who send in the incorrect amount, and offer two choices: accept a refund to get back to the end of the current year, or pay an additional amount to get them to the end of the next year.

Pikes Peak Region Ham Event Calendar

November / December 2000 -- Please see Page 2 for Points of Contact						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4 Local SET CW Sweepstakes
5 MARC VE Test CW Sweepstakes	6	7 Election Day	8 PPRAA Mtg	9 Lunch Bunch	10	11 RMRL Hamfest Veterans Day Local SET (Alt)
12 Fox Hunt	13 PPRAA Brd Mtg	14	15 MARC Mtg	16 RACES Mtg	17	18 Phone Sweepstakes Russ/Rosie Dinner
19 Phone Sweepstakes	20	21	22	23 Thanksgiving	24	25
26	27 ZB Deadline	28	29	30	1	2
3	4	5	6	7	8 MARC Christmas Party	9 PPRAA VE Test
10	11	12	13 <u>NO</u> PPRAA Mtg - Christmas Party on the 15th	14 Lunch Bunch	15 PPRAA Christmas Party	16
17 Fox Hunt	18 PPRAA Brd Mtg	19	20 MARC Mtg	21 RACES Mtg	22	23
24	25 Christmas	26 ZB Deadline	27	28	29	30
31						

Membership Application for the Pikes Peak Radio Amateur Association, Inc. P.O. Box 16521, Colorado Springs, CO 80935-6521	
Date: _____ <input type="checkbox"/> New Member <input type="checkbox"/> Renewal Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Call: _____ Class: N T + G A E Phone: _____ Mbr of ARRL? <input type="checkbox"/> Yes <input type="checkbox"/> No E-mail: _____ Additional Family Members to Join/Renew: Name: _____ Call: _____ Class: _____ ARRL? _____ Name: _____ Call: _____ Class: _____ ARRL? _____ Name: _____ Call: _____ Class: _____ ARRL? _____	In which activities would you like to participate? Field Day ⇒ <input type="checkbox"/> Demonstrations ⇒ <input type="checkbox"/> Nets or round tables ⇒ <input type="checkbox"/> Organize activities ⇒ <input type="checkbox"/> Teach ham classes ⇒ <input type="checkbox"/> Full Member *: ⇒ <input type="checkbox"/> Family Membership *: ⇒ <input type="checkbox"/> Over 65 *: ⇒ <input type="checkbox"/> Over 65 Family *: ⇒ <input type="checkbox"/> Associate *: ⇒ <input type="checkbox"/> Ø-Beat Only *: ⇒ <input type="checkbox"/> ARRL Dues Incl'd \$34: ⇒ <input type="checkbox"/> Donation to Club: _____ Total Enclosed: _____
Would you like to receive Ø-Beat electronically via e-mail in PDF format <u>instead</u> of a printed copy? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Circle your interests ⇒ HF / V/UHF / FM / SSB / Digital / DX / Contests / Technical / Hardware / Other _____	
Renew your ARRL membership through the PPRAA! Send your ARRL renewal form and your check for the amount due to the ARRL to the PPRAA. Make the check payable to the PPRAA. The PPRAA will forward your renewal form to the ARRL. The PPRAA keeps \$2 as a donation or commission, and pays the difference to the ARRL.	
New and renewing members must submit a completed application form along with your check to the Treasurer. Please Type or Print Clearly!	

* Due to a transitional period in the dues structure, see Treasurer's column for amount if you're renewing !!
 (If you don't want to cut up your Ø-Beat you can get an app off of the club's web site.)

RadioActivities!

Lunch Bunch

The next Lunch Bunch is Nov 9 at 1130 at Home Town Buffet, Shops of the Bluffs, Austin Bluffs & N Academy. *(Always the Thursday following the club meeting.)* Contact Ginger Hipszky NØUOD for further details. See you there!

Dits & Bits

- **For Sale:** 40' Rohn 25G (3 sections and top section). Rotor plate. New concrete base section. Rohn installation catalog. On the ground. \$185. Also ONV safety belt with seat harness; ONV tool pouch; tower climbing lanyard. Brand new, never used. \$135. Bob Snyder KIØQM 638-2696
- **For Sale:** My radio/computer desk console. Made of wood, ready for your equipment, coax and electrical wires; with shelves and a space with a lockable door. 4' 10" tall x 4' wide x 2' deep; \$50. Rosie WAØMNL 471-9965 or cell 331-1979, or e mail: Russ-Rosie@juno.com

Other Local Clubs

- **CMRG Annual Mtg:** The CMRG held its annual meeting on 28 Oct in Security. The info came too late for the Oct Ø-Beat, and this issue is going to press

before the actual meeting. So tune in to the CMRG net on Thursday evenings at 9 pm on the 147.345 machine for the latest.

- **MARC Officers Elected:** As of 20 Sep, the new MARC officers are: WB9BTI (pres); NØZPX (VP); KCØFNV (Sec); KAØPII (Treas); and NØXIA and NØFCR board mbrs, with KØHBZ as past president. *de Wes KØHBZ*
- **ColCon Adds a New Repeater:** I-70 coverage has been extended from Parachute into Utah on the 145.355 MHz (123 Hz) machine at Grd Junction. Entire map can be viewed at <http://www.colcon.org>. *de John N5EHP*

Ham Classes Coming in January

Frank McNally KFØWF, our award-winning ARRL Instructor of the Year, will again be teaching classes beginning in January. Dates and details have not yet been finalized. Linda KBØRKW will have all the details in the Dec Ø-Beat!

Hamfests

- **Nov 11:** Rocky Mountain Radio League Hamfest, Jefferson Co. Fairgrounds, Golden. Contact Ron Rose, NØMQJ, 303-985-8692, n0mjq@arrl.net.

Pikes Peak Radio Amateur Association, Inc.
P.O. Box 16521
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